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INTERNATIONAL SEARCH REPORT

PCT/IB 03/04887

A. CLASSIFICATION OF SUBJECT MATTER

IPC 7 G02B3/02 G02B27/09 G11B7/125

According to International Patent Classification (IPC) or to both national classification and IPC

B. FIELDS SEARCHED

Minimum documentation searched (classification system followed by classification symbols)

IPC 7 G02B G11B

Documentation searched other than minimum documentation to the extent that such documents are included in the fields searched

Electronic data base consulted during the international search (name of data base and, where practical, search terms used)

PAJ, EPO-Internal, WPI Data

C. DOCUMENTS CONSIDERED TO BE RELEVANT

Category *	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
X	PATENT ABSTRACTS OF JAPAN vol. 2000, no. 16, 8 May 2001 (2001-05-08) -& JP 2001 006202 A (RICOH CO LTD), 12 January 2001 (2001-01-12) cited in the application abstract paragraph '0003! paragraph '0031! paragraph '0046! - paragraph '0060!; figures 1,2	1-9, 11, 12
Y	---	13-19
X	US 5 661 607 A (KATSUMA TOSHIKI) 26 August 1997 (1997-08-26) column 2, line 56 -column 4, line 45; figures 1,2	1-3, 5-7
A	---	13-15
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☒ Further documents are listed in the continuation of box C.☒ Patent family members are listed in annex.

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Date of the actual completion of the international search

6 February 2004

Date of mailing of the international search report

13/02/2004

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C.(Continuation) DOCUMENTS CONSIDERED TO BE RELEVANT

Category *	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
X	US 5 283 694 A (FRADY RICHARD A) 1 February 1994 (1994-02-01) column 2, line 56 -column 3, line 35; figures 1-3	1-5
A	-----	13-15
X	US 4 915 484 A (YAMAMOTO YOSHIHARU) 10 April 1990 (1990-04-10) column 4, line 3 -column 5, line 44 column 7, line 25 -column 8, line 37; figures 1,9A,9B	1,2
A	-----	13
Y	US 5 067 067 A (ESTELLE LEE R ET AL) 19 November 1991 (1991-11-19) column 1, line 19 - line 42; figures 1-3	13-19
A	----- PATENT ABSTRACTS OF JAPAN vol. 011, no. 107 (P-563), 4 April 1987 (1987-04-04) & JP 61 254915 A (CANON INC), 12 November 1986 (1986-11-12) abstract -----	1,7,8

INTERNATIONAL SEARCH REPORT

PCT/IB 03/04887

Patent document cited in search report		Publication date		Patent family member(s)	Publication date
JP 2001006202	A	12-01-2001	US	6240053 B1	29-05-2001
US 5661607	A	26-08-1997	JP	9054246 A	25-02-1997
US 5283694	A	01-02-1994	NONE		
US 4915484	A	10-04-1990	JP	63249801 A	17-10-1988
			JP	1109317 A	26-04-1989
			DE	3852416 D1	26-01-1995
			DE	3852416 T2	20-07-1995
			EP	0286368 A2	12-10-1988
US 5067067	A	19-11-1991	JP	3044609 A	26-02-1991
JP 61254915 2	A		NONE		